

nearly pure black and also by whitish streaks, whilst below and on the sides of the head the spots are due almost entirely to albinism. These mixtures, in which black plays a great part, produce a dull and speckled plumage which, up to a certain point, resembles that of our owls.

The tendency to melanism occurs also in the parroquets of New Zealand. These birds belong to the group of the Platycerci of which ornithologists have formed the genus *Cyanorhamphus*. Its plumage is of a dull green; a little pure red or yellow is still to be seen on the forehead or on some other very restricted parts; all the upper part of the body of the bird is of a yellowish-green colour much toned down with black, and below a similar but lighter tint spreads almost uniformly. In *Cyanorhamphus alpinus* the dominant coloration nearly corresponds to the yellowish green of the gamut No. 4, toned down by $\frac{5}{10}$ of black; in *C. novæ-zelandiæ*, the yellowish green belongs to the gamut No. 2 and to that No. 3, but it is dulled by $\frac{6}{10}$ of black; lastly, in *C. auriceps* the general tint of the plumage agrees with the yellowish green No. 1, toned down by $\frac{6}{10}$ of black over the whole upper surface of the body.

The islands of the great Indo-Pacific Ocean which are near Africa resemble New Zealand as regards the coloration of the plumage of their parrots. Thus in Madagascar, in the Mauritius to the east, and in the Seychelles and Comoro islands towards the north, and even on some parts of the neighbouring shore of Africa, we find several black species of parrots belonging to the genus *Coracopsis*.

In Australia the *Calyptorhynchi* abound; and the whole of their plumage is of an intense black colour or softened with white. Many of the Australian parroquets have pure colours in the same degree as those of America; but in many of these birds the tendency to melanism makes its appearance in various parts of the body, sometimes by the existence of a uniform tint very much toned down, and sometimes by the whole basal part of the feathers being invaded by black, which only bears near the margins a more or less narrow band of red, yellow, green, or blue.

In the memoir, of which I could only give a short abstract here, I review several other ornithological families which have furnished analogous facts and show the same tendencies—for example, the families of the Kingfishers, *Rallidæ*, and Ducks. But I have no space to speak of them here; and the facts which I have indicated suffice to show that in the southern Indo-Pacific region the ornithological types which elsewhere are clothed with brilliant colours, generally have tints toned down with black or weakened by a tendency to albinism.—*Comptes Rendus*, December 29, 1873, pp. 1551–1554.

On the Genus Callignathus and on Kogia Floweri of Dr. Gill.

By Dr. J. E. GRAY, F.R.S. &c.

Dr. Theodore Gill, in a semipopular paper on "Sperm-whales giant and pigmy," in the 'American Naturalist,' 1871, iv. p. 725, gives a general account of these animals, and proposes a new species.

Kogia Floweri, from Mazatlan, Lower California—described from a specimen consisting of the front of a lower jaw, and from the figure and notice of the animal, measuring nine feet in length, recently forwarded to him by Colonel Grayson. It is very interesting as proving that this genus is found in the North Pacific. The account and figure of Dr. Gill are so very like that of *Kogia MacLeayi* that I should not be at all surprised if *Kogia breviceps* from the Cape of Good Hope, *Kogia MacLeayi* from Australia (which has been proved not to be distinct from the skull of *Physeter simus* from the east coast of India), and *Kogia Floweri* from Mazatlan are all the same species, naturally inhabiting, like the sperm-whale, the tropical regions and wandering to the north and south, as the same species has been found on both sides of the equator.

From the comparison of the photographs which Mr. Krefft sent me, with the skull from Madras (described by Professor Owen) in the British Museum, I could find no difference, as stated in the 'Catalogue of Seals and Whales in the British Museum,' 1866, p. 392; and the comparison of the skulls since sent by Mr. Krefft has established the identity of the Australian specimens from the south and Indian from the north of the equator. Dr. Gill, having overlooked this observation (published in 1866), observes that a generic name will sooner or later be desired for *Kogia simus* from Madras, and therefore proposes to call it *Callignathus simus* (p. 738)—and copies Owen's figure of the young skull (p. 741, figs. 168-171), which is not to be confounded with the skeleton that Professor Owen copies from Krefft's photograph of *Euphysetes Grayii*, quite a distinct whale of the same group.

On the Development of the Phragmostracum of the Cephalopoda, and on the Zoological Relations of the Ammonites to the Spirulæ. By M. MUNIER-CHALMAS.

I have the honour to submit to the Academy the results of the observations which I have made on the development of the phragmostracum of the Cephalopoda in the laboratory of palæontological research at the Sorbonne, under the guidance of M. Hébert.

This comparative embryogenic investigation proves very clearly that the Ammonites are not tetrabranchiate Cephalopoda allied to the *Nautili*, as is generally supposed, but dibranchiate decapod Cephalopoda, having the greatest affinity to the *Spirulæ*.

As early as 1867 M. J. Barrande had proved, in his great work on the Silurian system of Central Bohemia, the small resemblance that exists between the Goniatites and the Nautilidæ during the first period of their development. In fact, the initial chamber of the phragmostracum of the Cephalopoda of the Nautilide group, except as regards the external cicatrix, does not sensibly differ in its general organization from the other primary chambers which are developed a little later. In speaking of *Cyrtoceras* M. Barrande moreover expresses himself as follows:—"We shall also call attention to the